GOMACO

CASE SUMMARY

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GOMACO CORP.

Ida Grove, Iowa Ida County

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Major: Mechanical Engineering

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The Company

GOMACO was established in 1965 by Harold Godbersen as an offshoot of Godbersen Equipment Company. It has grown to become the worldwide leader in slipform paving equipment, although every machine it produces continues to come from the two plants located in Godbersen's hometown of Ida Grove. GOMACO manufactures a wide variety of pavers, including curb and gutter machines, flat slab pavers, placer/spreader machines, trimmer/placer machines, texture/cure machines, canal pavers and finishers.

Project Background

Although it lacks any environmental policy statements, GOMACO is fairly proactive in the area of recycling. Waste paper is shredded and used for packing material, and a recycling program has been implemented that includes cardboard, metal and many forms of plastic. GOMACO is also currently working to eliminate Hazardous Air Pollutants (HAPs) from its air emissions.

Incentives to Change

GOMACO desired to improve the efficiency of its painting operations by reducing overspray in the paint booths, researching more effective booth filtration systems, and reexamining current masking practices. These goals were intended to both increase production and reduce the solid waste and harmful air emissions generated by the paint lines.

Results

Several major opportunities for potential annual savings are:

1) **Dry Filter Conversion** - \$2,500. Three of GOMACO's four paint booths utilized waterwash filtration systems at the beginning of the summer. Slowly being phased out of common practice due to their tremendous upkeep requirements, water wash filters generate a nasty paint sludge that requires extensive processing in order to be landfilled as a non-hazardous waste. By converting its booths to dry filters, GOMACO is selecting a more easily managed form of booth filtration that reduces solid waste and makes booth cleaning a less despised and time-consuming chore. Thus far, only one of the three paint booths has been converted, which should yield annual savings of \$2,500 and reduce the solid waste generated by that booth by 50 percent (by

weight). Once the other two booths have followed suit, those results should triple.



2) **Equipment Changes** - \$24,000. Transfer efficiency describes the percentage of material sprayed that actually coats its target. Unfortunately, industrial painting operations by their nature have notoriously poor transfer efficiencies, generally falling below 50 percent The resulting "overspray" waste is essentially purchased paint being flushed down the drain, which can cost large companies hundreds of thousands of dollars each year. Through the P2 program, GOMACO has identified numerous preventable sources of overspray in its paint booths, leading to a series of changes in equipment, equipment settings, and painter techniques. The materials savings generated by these improvements could reduce paint usage by 1,300 gallons each year, adding up to more than \$24,000.



3) Reusable, Efficient Masking - \$24,000. Before an assembled machine is given its final coat, any parts that will not be painted must be masked. Currently, GOMACO uses rags, plastic bags, and masking tape to cover the numerous hydraulic hoses on each machine. This requires a significant amount of time and labor, and it generates a large amount of solid waste when the masking materials are later removed and discarded. GOMACO is now experimenting with reusable hose covers that use plastic snap closures to facilitate easy attachment and detachment. Maskers are thrilled with the ease of use, and tests thus far have indicated improvements in efficiency of up to 30 percent or more. If used with every machine that requires masking, these covers would thereby save GOMACO more than \$24,000 in annual labor and materials costs. Their reusability would also reduce solid waste totals by at least 600 lbs.

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